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EXAMINER	
CHU, GABRIEL L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/677,898	**Applicant(s)** KUTH, RAINER	
	Examiner Gabriel L. Chu	**Art Unit** 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2007*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-8* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a)☒ All b)☐ Some * c)☐ None of:
 1.☒ Certified copies of the priority documents have been received.
 2.☐ Certified copies of the priority documents have been received in Application No. _____.
 3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 1-8 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. Referring to claim 1, and subsequently claims 2-8, Applicant has claimed “during a normal usage time… generating a computerized operation model that mimics a reproducible operation that occurs during normal usage time..." This portion of the claim is traced back to the amendment made 11 June 2007. Reading the specification, Examiner has not found any such support for generating the operation model during normal usage time. Examiner has found (from Applicant's pre-grant publication) from paragraph 10, “shadow operation, i.e. outside of the times used in normal operation”, from paragraph 17, that the operation model is “characterized by both input parameters such as input of a medical technical assistant operating the magnetic resonance device and other specifications” (which Examiner takes to mean the originally claimed “conditions that are relevant for said customer”), from paragraph 27, that installation and test is “implemented outside of the treatment times of patients, for example at night”,

and from paragraph 28, that the operator of the customer system can be the examination subject.

Examiner has not found support for generation of operation model during “normal” usage time. From a reading of the specification, Examiner hypothesizes that claim 2 more closely claims the intended subject matter, wherein test data may be generated for subsequent comparison, during non-normal usage. It is not clear where, if anywhere, Applicant has support for any "normal" usage beyond perhaps an assumed normal usage of equipment for no test purpose whatsoever.

Applicant is reminded of 37 C.F.R. 1.75 (d)(1) which states that the claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. (See 1.58(a).) Applicant’s specification has only one such explicit reference to “normal” or the non-claimed “shadow” usage, recited above from paragraph 10.

4. For the purpose of examination, as outlined in the MPEP, the claims are interpreted as encompassing the matter considered to be new.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 2, 4, 5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Referring to claim 2, and subsequently claims 4, 5, Applicant has claimed “the step of installing a software system comprises installing system with original software…” This is understood to refer either to the “step of installing new software in said technical system” or a separate “step of installation of original software”. In either case, this claim is understood to refer to Applicant’s pre-grant publication paragraph 21 wherein operation model operations are performed on the system as a way to create baseline results (“first result”) for subsequent comparison to the results of the system operated with the operation model for "new software" installed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 1, 2, 4-8 rejected under 35 U.S.C. 103(a) as being unpatentable over US 5335342 to Pope et al. in view of US 6237138 to Hameluck et al. and US 5488339 to Havens et al.

10. Referring to claim 1, Pope discloses a method for testing a software system that operates a technical system, comprising the steps of:

operating a technical system with existing software installed and, while said technical system is operated during an existing software usage time for interaction with a user of the technical system, generating a computerized operation model that mimics a reproducible operation procedure that occurs during said existing software usage time of said technical system (From the abstract, “A first version of interactive software is executed on the system-under-test. During execution all input signals to the system-under-test such as mouse activities and keystrokes are recorded by the testing system as a script. Additionally, selected system-under-test display images are captured by the testing system.”);

installing new software in said technical system for operating said technical system; operating said technical system according to said operation model while using said new software system, during a “non-normal” usage time of non-interaction with users to obtain a test result for said software system (From the abstract, “Subsequently, a second version of the interactive software is executed on the system-under-test and the previously recorded script is played back.” Wherein such a second version executed on the system must have been, at some point, configured for use on that system, i.e., “installed”, which may include registration with a base system and making base system resources available to it, but may also merely mean that the second version was made accessible to the system. Further, see figure 5, "Load second version of SUT software”.); and

evaluating said test result to detect errors in said operation of said technical system caused by said new software (From the abstract, “The images generated by the second version of software are compared to the images generated by the first version of software and the differences are displayed.” Further, see throughout Pope references to “pass”, “fail”, “errors”, “match”, “same results”, “predict expected results”.).

Although Pope does not specifically disclose that said operation model is generated during a “normal" usage time on customer premises, gathering development data at end-user premises is well known in the art. This is a general concept of “beta testing”, however more specifically, an example of it is shown by Hameluck, from line 39 of column 1, “The first pertains to field testing where a trained usability tester is deployed in a customer site to observe users doing real work in making use of computer applications. Typically the usability tester would keep notes of critical incidents or potential usability problems that are observed while the users perform their work.” A person having ordinary skill in the art at the time of the invention could have been motivated to gather test data at the customer site because it observes “real work in making use of computer applications”.

Further, although Pope does not specifically disclose that such customer premises may be a medical facility to interact with patients of the medical facility for treatment or examination, such premises are very well known in the art. However, an example of this is shown by Havens, from line 29 of column 1, “A mobile MRI is frequently operated in a parking lot adjacent to a hospital or medical facility and is a self-contained imaging room including the MRI equipment, space for the operator along with related controls and accessories plus space for the ingress and egress of patients." A person having ordinary skill in the art at the time of the invention could have been motivated to apply the system development process of Pope to an MRI machine because an MRI machine is a complex piece of equipment that is subject to revision and development and the bugs and fixes that go along with that.

11. Referring to claim 2, Pope in view of Hameluck and Havens discloses the step of installing a software system comprises installing said technical system with an original software system and operating said technical system with said original software system according to said operation model during said "non-normal" usage time (From the abstract, “A first version of interactive software is executed on the system-under-test. During execution all input signals to the system-under-test such as mouse activities and keystrokes are recorded by the testing system as a script. Additionally, selected system-under-test display images are captured by the testing system.” Wherein such a first version executed on the system must have been, at some point, configured for use on that system, i.e., “installed”, which may include registration with a base system and making base system resources available to it, but may also merely mean that the second version was made accessible to the system. Further, see figure 3, "Load first version of software on SUT”.).

12. Referring to claim 4, Pope in view of Hameluck and Havens discloses said evaluation of the operation of the technical system of the medical facility with the operation model, generating feedback and providing said feedback to a software developer (From line 43 of column 9 of Pope, “As bugs are found during the playback process, the test engineer can generate bug reports on the integral word processor. The failed images and the test procedures used can be easily appended to the bug report to fully document the software failures as they occur.”).

13. Referring to claim 5, Pope in the detailed embodiments does not explicitly disclose that this feedback is analyzed for developing an improvement of said original

software system, however, this is the whole point of the automated software (regression) testing. This is shown in the background of Pope, from line 10 of column 1, “Software development requires extensive repetitive testing as new versions of the software are produced throughout the development process. With each version comes a repetitive series of tests to determine if the changes made to create the new version have affected the software in an unintended manner. Thus, with each new version an operator must repeat all of the input commands tested on the previous version to ensure that the software still functions as intended.” Pope developed the automated software testing system because it wanted to find errors in the software for improvement.

14. Referring to claim 6, Pope in view of Hameluck and Havens discloses in generating said operation model, documenting, as protocol, at least one of input parameters, input data and boundary conditions of said technilca system of said medical facility (From the abstract, “A first version of interactive software is executed on the system-under-test. During execution all input signals to the system-under-test such as mouse activities and keystrokes are recorded by the testing system as a script. Additionally, selected system-under-test display images are captured by the testing system.”).

15. Referring to claim 7, Pope in view of Hameluck and Havens discloses in generating said operation model, establishing limit values differentiating between error-free operation of said technical system and erroneous operation of said technical system (From line 1 of column 7, “The TCL if-statements having optional condition

statements, e.g., if pass, if fail, etc., refer to the outcome of the image comparisons accomplished by the ASTS during the playback operation. The usefulness of these statements will become obvious when the playback mode of operation is discussed.").

16. Referring to claim 8, Pope in view of Hameluck and Havens discloses in generating said operation model, automatically implementing an operation procedure associated with said technical system, in addition to said documenting (From the abstract, "A first version of interactive software is executed on the system-under-test. During execution all input signals to the system-under-test such as mouse activities and keystrokes are recorded by the testing system as a script. Additionally, selected system-under-test display images are captured by the testing system.").

17. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Pope, Hameluck, and Havens as applied to claim 1 above, and further in view of US 6948166 to Barfield et al.

18. Referring to claim 3, Pope in view of Hameluck and Havens discloses operation and monitoring of said technical system of the medical facility according to said operation model during said non-normal usage time (see rejection of claim 1).

Although Pope in view of Hameluck and Havens do not specifically disclose after such operation and monitoring reverting to said existing software to operate said technical system in said "normal" usage time, reversion of software is known in the art. An example of this is shown by Barfield, from the abstract, "The present invention is embodied in a system and method for managing software packages that are to be installed on a computer by automatically de-installing previously installed software based on user defined preferences to prevent trial, demo or unwanted software and its components from being unnecessarily kept on the user's computer.” A person having ordinary skill in the art at the time of the invention could have been motivated to de-install software because, as disclosed in Barfield, from line 42 of column 6, “However, if the user already has a very stable and trusted system that does not have conflicts or anomalous behavior and he/she is satisfied with the system, the present invention will prevent destabilization or changes to the system by newly installed software packages.” Further, from line 8 of column 7 of Barfield (with emphasis), “An advantage of the present invention is that it gives the user added confidence that damage or destabilization will not occur to the user's computer when installing and then uninstalling demo or trial version software packages. Namely, undesirable or annoying changes to the computer that occur after installation of the software package will disappear when the de-install module reverts the computer to the previous configuration after the user defined period of time elapses. Further, the present invention provides a convenient way for **beta testers to install, test and then completely de-install** software packages so that the beta testers can test hundreds of software packages without destabilizing their systems.” Wherein, for example, trial software exists during a trial period.

Response to Arguments

19. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See notice of references cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (571) 272-3656. The examiner can normally be reached on weekdays between 8:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gabriel L. Chu/
Primary Examiner
Art Unit 2114

gc